# MidSchoolMath conference helps teachers, students and regional economy

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Despite intense snowy weather, the recent national MidSchoolMath conference brought more than 450 educators to Santa Fe, with 300 of them coming from New Mexico public and private schools. Attendees from outside of New Mexico arrived from over 22 states and countries as far away as Colombia and Dubai.

The MidSchoolMath initiative, which is sponsored by Los Alamos National Laboratory, Los Alamos National Security (LANS), LLC and additional partners, addresses the pronounced decline in mathematics competency among American middle school students and attempts to change the way math is taught.

"Hearing from future employers gave me information I was able to take back to my kids," one of the MidSchoolMath conference participants said. An Albuquerque teacher

found that the MidSchoolMath conference “provides educators with ideas and resources to make the math experience an exciting, engaging and rewarding experience for their students."

## Top secret math problem

The MidSchoolMath conference is founded on the idea that storytelling, the oldest approach to human learning, has the power to transform student attitudes, improve test scores and establish a solid foundation for future study.

Kurt Steinhaus, director of the Laboratory’s Community Programs Office, shared an imaginative “Top Secret” math challenge with the conference attendees that they could pass on to students. In the exercise, the students were invited to imagine that it is 1943 again, and that they have been approached by the U.S. Department of Energy to be part of a select team for a top-secret project in Los Alamos known as “Site Y.”

“Obviously, we can’t give you the specifics of the project,” the instructions stated, “but we need to test your mathematical mind so we will use code word ‘soda’ as a placeholder. For your job interview, you are required to show and explain, using multiple forms of representation, the cost of soda per six-pack and per case of 24. These include using (1) pictures, (2) graphs, (3) algebraic formulas, (4) tables and (5) written descriptions. The Pentagon (also completed in 1943) provides you with a visual representation of these 5 different forms. Good Luck.”

Dan Meyer, this year's MidSchoolMath keynote speaker, really enjoyed Steinhaus’ Los Alamos math problem. "Kids love this kind of stuff," he noted.

## Economic impact

Beyond helping to bring about a brighter future for math education, the MidSchoolMath conference also spells economic benefits for northern New Mexico, and the economic impact of conference participants’ hotel stays and restaurant meals are just the beginning.

Founded in 2009 by middle school teacher Scott Laidlaw and certified public accountant Jennifer Lightwood, the Taos-based MidSchoolMath enterprise has not only brought in revenues but also funding from regional and external sources.

In 2011, for instance, MidSchoolMath received a $100,000 Venture Acceleration Fund award, an economic development investment by Los Alamos National Laboratory and LANS, and subsequently was awarded a $500,000 grant from the Bill and Melinda Gates Foundation and the William and Flora Hewlett Foundation.

In addition, the company received $1.05 million from the federal Small Business Innovation Research program to develop *Empires*, a new game the company launched at the 2015 conference as part of its MidSchoolMath Digital Toolset.

Next year's Santa Fe conference will begin on February 18, 2016. To learn more, visit the MidSchoolMath website.